

REMARKS IN RESPONSE TO THE OFFICE ACTION

This amendment is responsive to the Office Action dated October 24, 2008. Claims 22–42 are pending in the application, with Claims 1 and 42 being independent claims. Claim 42 stands rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Furthermore, Claims 22–31, 33, 35, 36, and 40–42 stand rejected under 35 U.S.C. § 102(a) as being anticipated by U.S. Patent Publication No. 2003/0200662 to Moore et al. (“Moore”), and Claims 22–30 and 42 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,758,424 to Iacona. In addition, Claims 32, 34, and 37–39 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Moore.

Applicant respectfully requests reconsideration of the claims in view of the amendments already set forth herein and in view of the Remarks that follow.

Claimed Invention

Independent Claim 22 as amended above relates to a cutting head that includes a passageway for a cutting wire and a movable element for locking the wire. The locking element includes a slide that is capable of moving linearly in a radial direction in a guide that intersects the wire passageway and that is subjected to a force. The slide and the wire passageway in the vicinity of the guide respectively have working surfaces that are capable of locking the wire by shearing effect. The shearing effect is provided between a bearing point of the cutting wire on the working surfaces of the wire passageway arranged in the cutting head, on either side of the slide, and a bearing point of the cutting wire on the working surface arranged in the slide. Claims 23–41 depend from independent Claim 22. In addition, Claim 40 has been amended to correct a typographical error.

Independent Claim 42 relates to a cutting device that includes a motor capable of rotating a cutting head. The cutting head is similar to that recited in Claim 22, in that it includes a

locking element that comprises a slide that is capable of moving linearly in a guide that intersects the wire passageway and that is subjected to a force. The slide and the wire passageway in the vicinity of the guide respectively have working surfaces that are capable of locking the wire by shearing effect.

Objection to the Drawings and Specification

The Examiner objected to Fig. 4 as not showing element 113 referenced on page 8 at line 32 of the specification. Figure 4 has been amended in the attached replacement sheet to correct this typographical error.

Claim Rejections Under 35 U.S.C. § 112, Second Paragraph

The Office Action rejected Claim 42 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Claim 42 has been amended as provided above to address the rejection. In particular, the phrase “such as a brush-cutter, edge-trimmer or similar” is not intended to limit the scope of the claims, but only to exemplify the cutting device. Claim 42 has thus been amended to remove this phrase.

Claim Rejections Under 35 U.S.C. § 102(a)

Claims 22–31, 33, 35, 36, and 40–42 stand rejected under 35 U.S.C. § 102(a) as being anticipated by Moore. Applicant submits that the rejection of Claims 22–31, 33, 35, 36, and 40–42 is improper and should be withdrawn for the reasons described below.

Moore discloses a head for a line trimming apparatus that includes a spring-biased clamp that is supported on a body member and is engageable with a filament portion in a channel to retain the filament in the channel. The clamp described by Moore differs in several respects from the locking element recited in Claims 22 and 42.

For example, the locking element according to the claimed invention includes one slide that extends radially, whereas the mechanism shown in Moore includes two filament clamps **15** that do not move in a radial direction. Furthermore, the locking element according to Claims 22 and 42 exerts a shearing force on the wire, whereas Moore's clamp exerts a pressure on the wire.

In particular, shearing is meant to describe a deformation of the wire in a direction perpendicular to the length of the wire due to the application of opposite forces acting along the same line perpendicular to the length of the wire. This is best illustrated in Fig. 12B, showing the slide in its locking position, which is reproduced below for the Examiner's convenience with arrows representing the shearing forces applied to the wire.

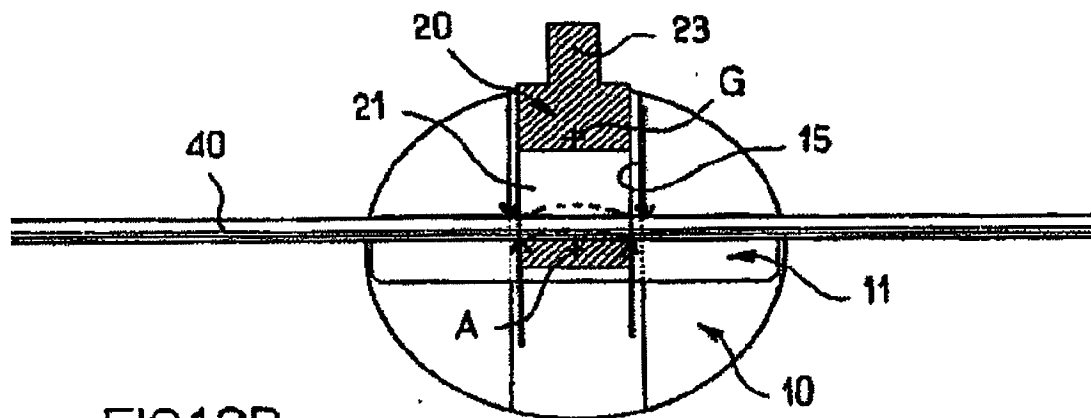


FIG.12B

At the bearing point of the wire **40** in the wire passageway **11**, a force is exerted on the cutting wire (pointing downwards in the figure above), whereas at the bearing point of the wire **40** in the passageway **21** arranged in the slide **20**, an opposite force (pointing upwards in the figure above) is exerted on the wire. The shearing stress resulting from these opposite forces tends to bend the cutting wire **40** within the wire passageway **21** of the slide. This bending of the wire is shown by dotted lines in the figure reproduced above.

To the contrary, and as clearly explained in Moore (see, e.g., paragraph [0054]), the two clamps **20** secure the filament in the passageway by exerting a pressure on the filament. More precisely, referring to Fig. 2 of Moore, the pressure is exerted by the filament opening **22** of each

clamping arm segment **20** in the direction of arrow **42** (shown in Fig. 8) and results in pressing the filament against the clamp wall **4**. Indeed, due to the small width of the clamping arm segments **20**, it must be understood that the wire remains linear within the filament opening **22** and could at most be slightly flattened against the clamp wall **4**, which constitutes a backing wall preventing any deformation of the wire.

As a consequence, Moore fails to anticipate a cutting head including a slide that is capable of moving linearly in a guide that intersects the wire passageway and is configured to lock the wire by shearing effect, as recited in Claims 22 and 42 and the claims that depend respectively therefrom. Furthermore, Moore does not disclose a slide which is capable of moving linearly in a radial direction, as recited in Claim 22 and the claims that depend therefrom. Thus, for at least these reasons, Claims 22 and 42, and the claims that depend therefrom, are patentable over the cited reference.

Claim Rejections Under 35 U.S.C. § 102(b)

Claims 22–30 and 42 are also rejected under 35 U.S.C. § 102(b) as being anticipated by Iacona. Applicant submits that the rejection of Claims 22–30 and 42 is also improper and should be withdrawn for the reasons described below.

Iacona is directed to a cutting head that includes clamping member to clamp the strings within the cutting head. The clamping force is provided by springs and centrifugally generated moments. In this regard, cams **36** are provided for applying varying degrees of force on the string **14** for maintaining the string **14** between the cam **36** and the pressing wall **32**, as shown in Figs. 2 and 3 and described at col. 4, line 53 through col. 5, line 16.

Thus, Iacona fails to disclose a cutting head comprising a locking element that includes a slide capable of moving linearly in a guide, as recited in Claims 22 and 42. To the contrary, the cams **36** in Iacona are designed to rotate around a post **38** and do not need to move within any guide. As a result, Iacona also fails to disclose a guide intersecting the wire passageway, as recited in Claims 22 and 42.

Furthermore, Iacona does not disclose locking a wire by shearing effect, as recited in Claims 22 and 42. Rather, each cam **36** of Iacona acts to press the cutting string **14** against the pressing wall **32** (see, e.g., col. 4, line 64 to col. 5, line 2).

Thus, for at least these reasons, Claims 22 and 42, and the claims that depend therefrom, are patentable over the cited reference.

Claim Rejections Under 35 U.S.C. § 103(a)

Claims 32, 34, and 37–39 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Moore. Claims 32, 34, and 37–39 depend from independent Claim 22. As discussed above, Moore does not teach or suggest every element recited in independent Claim 22. Thus, for at least the same reasons, Claims 32, 34, and 37–39 are patentable over Moore.

END OF REMARKS

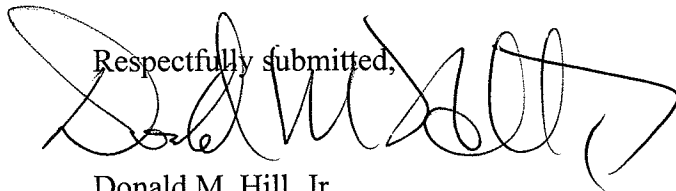
Conclusion

In view of the remarks and amendments presented above, it is respectfully submitted that Claims 22 and 42, and all the claims depending therefrom (*i.e.*, Claims 23–41) are in condition for allowance. It is respectfully requested that a Notice of Allowance be issued in due course. The Examiner is requested to contact Applicant's undersigned attorney to resolve any remaining issues in order to expedite examination of the present application.

The patentability of the independent claims has been argued as set forth above and thus Applicant will not take this opportunity to argue the merits of the rejection with regard to specific dependent claims. However, Applicant does not concede that the dependent claims are not independently patentable and reserves the right to argue the patentability of dependent claims at a later date if necessary.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Donald M. Hill, Jr.', written over the typed name.

Donald M. Hill, Jr.
Registration No. 40,646

Customer No. 00826
ALSTON & BIRD LLP
Bank of America Plaza
101 South Tryon Street, Suite 4000
Charlotte, NC 28280-4000
Tel Charlotte Office (704) 444-1000
Fax Charlotte Office (704) 444-1111

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